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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service

NATIONAL SCHOOL LUNCH PROGRAM

SURVEY OF FOODS PURCHASED FOR SCHOOL LUNCH PROGRAMS

The National School Lunch Program has, over the 10 years of its operation under the National School Lunch Act, grown to stature as an important factor in agricultural marketing. To gain more information about the market made by the program, the Food Distribution Division is conducting a series of studies of food expenditures by schools.

The several studies, when all are completed, will be brought together in booklet form to present the information to all who are interested. However, copies of the studies are being presented, as each is completed, in this preliminary form for review by persons particularly interested in them.

The attached report is one of these preliminary copies.

Agriculture-Washington

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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service

NATIONAL SCHOOL LUNCH PROGRAM

SURVEY OF FOOD UTILIZATION IN SCHOOL LUNCH PROGRAMS
IN TWO BURLINGTON, NORTH CAROLINA SCHOOLS

This report is one of a series of studies to provide information on the significance of school lunch programs as a market for fresh and processed foods.

This survey reports on the total foods purchased for two of the 11 schools which participated in the National School Lunch Program in Burlington, North Carolina, during the 1955-56 school year. These two schools, however, had approximately 35 percent of the total student participation in the lunch programs operated by the 11 schools and the food purchases, on a per capita basis, were reported as representative for the 11 schools in the system.

General

In the 1955-56 school year, 8 elementary, 1 junior high and 2 senior high schools participated in the National School Lunch Program in Burlington. During November 1955, these 11 schools had an average daily attendance of 6,400 students with 5,630 students (88 percent) participating in the lunch program. Eight of the 11 schools had an average daily attendance of 3,964 students with 3,891 students participating in the lunch program. This was 98 percent of the average daily student attendance.

High participation in the school lunch program was attributed to:

1. A 30-minute lunch period. Children were not allowed to leave the school grounds during the lunch period. Since, in a majority of cases, both parents worked, the school system adopted this practice to keep the children under maximum supervision.
2. Excellent meals. The service of good food at a reasonable price created a greater demand for school meals than for home-packed lunches.
3. Cooperation of school officials. A significant factor in the high rate of participation was the enthusiasm of the principals, teachers, and lunchroom managers in the lunch program. The City Superintendent of Schools said, "I will not employ a teacher for our schools who will not cooperate and take an interest in the lunch program."

No a la carte sales of food or candy were made at the schools. Ice cream was sold apart from the lunch program and was available only after students purchased their plate lunches. The two high schools provided a choice of two plate lunches, while the balance of the schools served a single plate lunch. Elementary school students paid 25 cents for meals while 30 cents was charged students in the junior and senior high schools.

Foods for the 11 schools are acquired on the basis of competitive bids and centralized purchases made by the Director of Cafeterias. A centralized storage facility with a capacity for $1\frac{1}{2}$ cars of canned goods and a zero room with a capacity for 45,000 pounds of frozen food, are used for storing commodities obtained from the Department of Agriculture or which are purchased from local merchants.

School lunchroom managers prepare menus a week in advance and submit them to the Director who may adjust items on the menus in accordance with the stocks of food available. Based on quantities needed to meet the week's menu requirements, deliveries of food are made to the school once a week from the central warehouse.

Summary

The value of all food purchased for the preparation of 970,000 meals served to 6,400 students during the school year totaled \$204,680. The 11 schools received from the Department of Agriculture, over 200,000 pounds of food valued at \$57,000, representing about 22 percent of the value of all the food used for school lunches. During the year other expenditures involved in the preparation of school meals were \$73,900 for labor, \$22,200 for replacement or purchase of new equipment, and \$22,400 for miscellaneous items -- a total of approximately \$323,000.

Specific data are presented for the combined food purchases of Broad Street Junior High and Walter Williams Senior High School. These two schools, representing about one-third of the total lunch participants of the 11 schools, had a combined average daily attendance of 2,185 students, an average daily participation in the lunch program of 1,946 students (89 percent) and served a total of 329,588 Type A lunches during the school year. An additional 2,280 Type A meals without milk were served in these two schools during the year. Total expenditures for food were \$82,531 which includes \$5,821, the value of the a la carte ice cream sales during the year.

The volume and dollar value of the food groups purchased for the two schools are shown in Table 1. Dairy products accounted for about 40 percent of the food dollar followed by the meat, poultry and fish food grouping, which represented 19 percent of the money expended. Purchases of fruits and vegetables took 20 percent, while bread and rolls accounted for another 10 percent of the food dollar.

Table 1. Food Purchases for Two Burlington, North Carolina Schools
By Food Groups - School Year 1955-56

<u>Food Group</u>	<u>Pounds</u>	<u>Dollar Value</u>	<u>Percent of Total Value</u>
Milk and dairy products	217,119 <u>a/</u>	32,239.90 <u>b/c/</u>	39.1
Meat, poultry and fish	38,277	15,478.80	18.7
Vegetables, fresh & canned	124,922	10,964.99	13.3
Fruits, fresh, canned, dried	37,331	6,016.40	7.3
Bread and rolls	50,371	8,059.35	9.8
Miscellaneous	<u>40,516</u>	<u>9,772.50</u>	<u>11.8</u>
Total	508,536	\$82,531.94	100.0

a/ Excludes weight of ice cream.

b/ Includes value of ice cream.

c/ Includes \$3,580, the value of 55,180 units of milk consumed under the Special Milk Program.

Among the beef products, hamburger and frankfurters accounted for 54 percent of the money spent for beef. Over 60 percent of the money spent for pork and its products was spent for ham. Expenditures for chicken were twice as large as for turkey, representing 44 and 20 percent, respectively, of the money spent in the poultry foods category. Apparently because of portion control, ease of preparation, and acceptability to the students, fish sticks accounted for 64 percent of the money spent for fish and fish products.

Canned baby lima beans and peas represented the largest expenditures among the canned vegetables accounting for 35 and 24 percent, respectively, of the money spent in this food category. Among the fresh vegetables, potatoes represented 31 percent while tomatoes and cabbage each represented about 17 percent of the money spent for fresh vegetables.

About 75 percent of the money spent for canned fruits was for apples, applesauce, peaches and pineapple. Apples and frozen strawberries were the major items purchased among the fresh and frozen fruits.

Milk consumption in the two schools totaled over 400,000 half pints of milk or an average of 183 half pints per student, based on average daily attendance records for the school year. The value of the milk consumed by the children at these schools was \$26,000 or 81 percent of the \$32,000 spent for milk and dairy products.

Some 30 miscellaneous staple items, such as flour, sugar, soups, spices, etc., accounted for an expenditure of \$17,800 or about 12 percent of the money spent for foods used in meal preparation at the two schools.

A. Meat, Poultry and Fish

This group was the most expensive of the foods purchased by the schools, representing 19 percent of the money spent but only 7.5 percent of the total poundage purchased.

As shown in Table 2, beef and pork products were purchased in terms of almost equal poundage, however, the money spent for beef was higher by about 12 percent. Ground beef and frankfurters accounted for 60 percent of the poundage in the beef category. Ham, in several forms, was the largest single item representing 40 percent of the money spent for pork and pork products. This was followed closely by fresh and canned sausage which accounted for one-third of the money spent for pork products.

About 8,500 pounds of chicken and turkey were purchased, in a ratio of about 2 to 1, respectively, at a total cost of \$3,600. The purchase of almost 1,300 pounds of chicken fat is unusual in that this was the first time it was encountered in any of the food studies which were recently conducted. This item finds usefulness in the preparation of biscuits, pastry, gravies, sauces and in other foods where its delicate flavor was used to advantage.

Frozen fish sticks accounted for two-thirds of the dollar value and volume of the canned and frozen fish purchases.

B. Fruit - Canned, Fresh, Frozen and Dried

Fruit in canned form represented 90 percent of the value of the purchases in this food grouping. About one-third of the 32,000 pounds of canned fruit was made up of apples and applesauce, while peaches and pineapple accounted for 21 and 15 percent, respectively, of the canned fruit served. Fresh apples and bananas accounted for 5 percent of the total expenditures for fruit. Dried fruit, consisting primarily of raisin purchases, was not too significant a factor in the food grouping, accounting for only 2.5 percent of the total fruit dollar. As indicated in Table 3, the two schools purchased a total of over 37,000 pounds of fruit at a cost of about \$6,000.

C. Dairy Products

Milk and other dairy products represented about 40 percent of the total food bill, the largest single food expenditure. Over 400,000 half pints of milk were consumed at the schools at a cost of \$26,000 or over 80 percent of the money spent in this food grouping. As previously indicated, ice cream was not served as part of the school lunch but was available to the students as an a la carte item. Sales were made in the form of cups or sandwiches and represented 18 percent of the money spent for dairy products as shown in Table 4.

D. Vegetables - Canned and Fresh

A total of 125,000 pounds of canned and fresh vegetables at a cost of about \$11,000, was purchased for the two schools as shown in Table 2. In terms of poundage, the canned and fresh vegetables represented 44 and 56 percent, respectively; however, in terms of dollar value, the canned vegetables represented 71 percent of the cost of the fresh and canned vegetables purchased. Canned lima beans and peas accounted for about 58 percent of the canned vegetable purchases in terms of both poundage and dollar value. Green beans, corn and beets represented 9, 6, and 5 percent, respectively, of the money spent for canned vegetables.

Potatoes and cabbage provided the bulk of the fresh vegetables, together representing over 70 percent of the weight of foods bought in this food grouping. In terms of cost these two vegetables represented 48 percent of the money spent in this food category. Two other important vegetables in terms of dollar costs were tomatoes and lettuce, representing about 17 and 13 percent, respectively, of the expenditures in this group.

E. Miscellaneous Foods

Table 6 shows that \$18,000 was spent to purchase 90,000 pounds of food which served to round out the preparation of wholesome, nutritious meals for the school children. Approximately \$1,000 or about 6 percent of the expenditures in this category are lumped together under "Other Miscellaneous" since the odds and ends were so numerous and their individual dollar values were so small.

Bread and rolls was the single largest element in this group, accounting for almost half of the money spent in the "miscellaneous" group. Cake and roll mixes and plain and self-rising flours were other significant purchases accounting for 12 percent of the dollar value in this food grouping. Another important item in the miscellaneous group was the expenditure of about \$1,000 for five tons of sugar, an average of $1\frac{1}{2}$ pounds per student participant in the lunch program.

F. Donated Commodities

In Table 7 are shown the commodities donated by the U. S. Department of Agriculture for use in the 11 schools of the Burlington City School System. A total of 200,000 pounds of food valued at over \$57,000 was made available to the schools through several of the programs operated by the USDA. Meat and dairy products were the two largest items in terms of poundage, representing 41,000 and 37,000 pounds, respectively -- over one-third of the donated foods.

Table 2. Meat, Poultry and Fish Purchases for Two Schools
of the Burlington, North Carolina School System
School Year 1955-1956

<u>Commodity</u>	<u>Pounds</u>	<u>Dollar Value</u>	<u>Percent of Total Value</u>
<u>Beef</u>			
Corn beef	80	39.20	.8
Ground beef	3,275	1,626.25	34.9
Chipped beef	155	173.52	3.7
Stew beef	830	470.65	10.1
Beef liver	519	171.60	3.7
Roast beef	772	463.20	10.0
Steak	735	450.90	9.7
Frankfurters	2,976	1,041.76	22.4
Fat meat	674	217.90	4.7
Total Beef	10,014	4,654.98	100.0 (30.1)
<u>Pork</u>			
Ham, boned and rolled	2,041	1,467.11	36.8
Ham, baked	579	298.18	7.5
Ham, spiced	1,458	451.98	11.4
Bologna	2,222	73.43	1.8
Bacon	243	109.71	2.8
Sausage	1,550	511.30	12.8
Vienna sausage, canned	1,366	594.90	14.9
Pork chops	170	85.00	2.1
Fresh pork	283	98.12	2.5
Spare ribs	730	292.75	7.4
Total Pork	10,642	3,982.48	100.0 (25.7)
<u>Poultry</u>			
Turkey	2,493	1,117.42	20.3
Chicken	6,143	2,435.57	44.2
Chicken fat	1,273	494.30	9.0
Eggs	4,606	1,458.21	26.5
Total Poultry	14,515	5,505.50	100.0 (35.6)
<u>Fish</u>			
Fish sticks, frozen	2,032	853.74	63.9
Perch, frozen	400	121.00	9.1
Salmon, canned	384	210.35	15.7
Tuna, canned	288	150.75	11.3
Total Fish	3,104	1,335.84	100.0 (8.6)
GRAND TOTAL	38,277	\$15,478.80	(100.0)

Table 3. Fruit Purchases for Two Schools of the Burlington,
North Carolina School System
School Year 1955-56

<u>Commodity</u>	<u>Pounds</u>	<u>Dollar Value</u>	<u>Percent of Total Value</u>
<u>Canned Fruit</u>			
Apples	5,529	969.10	18.0
Applesauce	4,320	508.75	9.5
Blackberries	620	113.00	2.1
Cherries	3,920	696.00	12.9
Fruit cocktail	2,525	454.91	8.5
Orange sections	480	112.80	2.1
Peaches	6,800	1,100.20	20.4
Pears	2,760	510.28	9.5
Pineapple	4,637	844.20	15.7
Plums, deluxe	240	39.30	.7
Grapes	160	33.00	.6
Total Canned Fruit	31,991	5,381.54	100.0 (89.4)
<u>Fresh & Frozen Fruit</u>			
Apples	3,600	220.00	45.8
Bananas	775	81.50	16.9
Lemons	60	6.96	1.4
Strawberries, frozen	540	172.50	35.9
Total Fresh & Frozen	4,975	480.96	100.0 (8.0)
<u>Dried Fruit</u>			
Prunes	50	26.00	16.9
Raisins	315	127.90	83.1
Total Dried Fruit	365	153.90	100.0 (2.6)
GRAND TOTAL	37,331	\$6,016.40	(100.0)

Table 4. Dairy Products Purchased for Two Schools of the
Burlington, North Carolina School System
School Year 1955-56

<u>Commodity</u>	<u>Pounds</u>	<u>Dollar Value</u>	<u>Percent of Total Value</u>
Milk, fresh whole	215,795	26,178.30	81.2
Evaporated milk	44	4.85	<u>1/</u>
Cottage cheese	72	12.95	<u>1/</u>
Whipping cream	405	169.05	.5
Buttermilk	803	53.55	.2
Ice cream	<u>2/</u>	5,821.20	18.1
Total	217,119	\$32,239.90	100.0

1/ Less than .05 percent.

2/ Ice cream sales are not a part of the School Lunch Program. Details of the weights were not available, however, the dollar value of the product is included in these figures.

Table 5. Canned and Fresh Vegetable Purchases for Two Schools
of the Burlington, North Carolina School System
School Year 1955-56

<u>Commodity</u>	<u>Pounds</u>	<u>Dollar Value</u>	<u>Percent of Total Value</u>
<u>Canned Vegetables</u>			
Asparagus	380	104.90	1.3
Bean sprouts	646	77.65	1.0
Beets	2,040	375.00	4.8
Carrots	80	7.80	.1
Corn	3,760	476.50	6.1
Green Beans	4,180	698.50	9.0
Lima Beans, baby	16,600	2,731.80	35.0
Peas	15,120	1,865.45	23.9
Onions, whole	304	87.60	1.1
Pimiento	290	161.50	2.1
Sweetpotatoes	1,680	234.48	3.0
Tomatoes	190	25.00	.3
Tomato Paste	1,035	180.30	2.3
Sauerkraut	2,242	179.95	2.3
Turnip Greens	3,636	277.75	3.6
Mixed Vegetables	2,880	322.80	4.1
Total Canned	55,063	7,806.98	100.0 (71.2)
<u>Fresh Vegetables</u>			
Cabbage	13,525	518.32	16.4
Cabbage, red	114	8.81	.3
Carrots	2,925	169.30	5.4
Cauliflower	18	1.85	.1
Celery	1,413	96.44	3.0
Cucumbers	194	21.36	.7
Lettuce	2,754	396.58	12.6
Onions	3,125	155.45	4.9
Parsley	--	.40	<u>1/</u>
Peppers	226	27.42	.9
Potatoes	36,600	996.55	31.5
Sweetpotatoes	2,950	140.00	4.4
Squash	648	60.23	1.9
Radishes	39	13.80	.4
Tomatoes	5,088	526.50	16.7
Turnip Greens	240	25.00	.8
Total Fresh	69,859	3,158.01	100.0 (28.8)
Total Vegetables	124,922	\$10,964.99	(100.0)

1/ Less than 0.05 percent.

Table 6. Miscellaneous Food Products Purchased for Two Schools
of the Burlington, North Carolina School System
School Year 1955-56

<u>Commodity</u>	<u>Pounds</u>	<u>Dollar Value</u>	<u>Percent of Total Value</u>
Sugar, gran., 4x & brown	9,990	1,054.55	5.9
Bread and rolls	50,371	8,059.35	45.2
Cookies and crackers	3,863	1,464.97	8.2
Flour, plain	3,075	215.25	1.2
, self-rising	1,775	126.20	.7
Cake and roll mix	6,710	1,780.84	10.0
Corn Meal	450	23.40	.1
Baking powder	88	13.56	.1
Spaghetti and macaroni	973	163.46	.9
Chop suey sauce	8	3.05	<u>1/</u>
Cranberry sauce	707	91.05	.5
Barbecue sauce	191	79.95	.4
Spaghetti sauce	80	91.30	.5
Worcestershire sauce	16	14.20	.1
Chow mein noodles	184	99.80	.6
Nuts	171	233.35	1.3
Pepper	34	34.53	.2
Salt	38	96.00	.5
Mustard	360	77.35	.4
French dressing	8	11.55	.1
Vinegar	384	21.60	.1
Coconut	120	40.00	.2
Pickles	3,060	423.80	2.4
Dried Peas	100	10.00	.1
Potato chips	110	117.66	.7
Potato sticks	1,462	960.60	5.4
Jello	1,680	859.80	4.8
Pudding	240	62.32	.3
Apple Jelly	216	28.75	.2
Rice	72	13.00	.1
Other Miscellaneous	--	989.76	5.6
Tomato soup	3,132	458.85	2.6
Pork and Beans	1,219	112.00	.6
Total Miscellaneous	90,887	\$17,831.85	100.0

1/ Less than .05 percent.

Table 7. USDA Donated Foods Received by 11 Schools of the
Burlington, North Carolina School System
School Year 1955-56

<u>Commodity</u>	<u>Pounds</u>	<u>Dollar Value</u>
<u>Section 32 & 416</u>		
Beans, dry	18,900	1,741
Butter	26,720	17,288
Cheese	8,670	3,823
Corn Meal	5,750	257
Cottonseed Oil	9,055	1,883
Flour, Wheat	10,600	618
Lard	1,260	196
Nonfat Dry Milk	2,025	373
Sweetpotatoes	11,200	586
Prunes, fresh	3,472	269
Pork - Ham, canned	10,270	6,560
Pork & Gravy	6,916	4,673
Luncheon Meat	7,290	3,272
Hams, frozen	8,710	4,174
Rice	12,600	1,526
Shortening	4,500	931
Total Section 32 & 416	147,938	48,170
<u>Section 6</u>		
Apricots	2,075	718
Cherries	6,200	826
Grapefruit Sections	10,368	1,237
Hamburger	8,580	2,938
Orange Juice, Conc.	2,286	510
Peanut Butter	3,038	771
Peas, canned	9,840	1,031
Tomatoes	10,108	1,028
Total Section 6	52,495	9,059
GRAND TOTAL	200,433	57,229

